

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

OF THE SUPERINTENDENT

March 10, 1919.

The Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Sir:-

I have the honor to submit my report of conditions
in the park for the month of February, 1919:

GENERAL STATEMENT.

The Yellowstone National Park was set aside by Act of Congress March 1, 1872, (Secs. 2474 and 2475, R. S., 17 Stat., 32) as a pleasuring-ground for the benefit and enjoyment of the people, and placed under the control of the Secretary of the Interior, who was authorized to make such rules and regulations as he deems necessary for the care and maintenance of the park. It is situated principally in northwestern Wyoming, but laps over a little more than two miles into Montana on the north, and about two miles into Montana and Idaho on the west. Its dimensions are about 62 miles north and south, and about 54 miles east and west, giving an area of about 3,348 square miles, or 2,142,720 acres. Its altitude is 6,000 to 11,000 feet.

The park was governed by civilian superintendents, assisted by a few scouts, from the time it was set aside until August 10, 1886, when, under authority contained in the Sundry Civil Bill, approved March 3, 1883, at the request of the Secretary of the Interior, the Secretary of War detailed troops of United States Cavalry to protect it, the commanding officer acting as park superintendent under the direct orders of the Secretary of the Interior. On October 16, 1916, by mutual agreement of the heads of the Interior and War Departments, the troops were withdrawn from the park and their work of patrolling and protecting the park was again taken over by civilians selected for the purpose by the Secretary of the Interior. A clause contained in the Sundry Civil Bill, approved June 12, 1917, (Public No. 21, 65th Congress) made it obligatory to use troops for patrolling the park, and they were returned by the War Department on

June 26, 1917, relieving the park superintendent of so much of the duties as pertained to "protection". The Sundry Civil Bill, approved July 1, 1918, again made provisions for the employment of a force of civilian rangers to protect the park, and a force of twenty-five rangers was organized and took over this work at the end of the 1918 tourist season; and Fort Yellowstone was formally abandoned at the close of November 1, 1918.

The Act of Congress which appropriated funds for protection of the park, also placed the appropriations for maintenance and improvement under the Secretary of the Interior, instead of under the Secretary of War, as heretofore, and permitted the combining of all work under this office.

The local office of the U. S. Weather Bureau, Department of Agriculture, is in charge of Mr. G. E. Lawton, Observer. Temperature and precipitation records are also made by the rangers at several of the stations, for the Weather Bureau.

The United States Department of Justice is represented by Mr. John W. Meldrum, United States Commissioner, who is authorized to try all violators of park rules, regulations or laws. Mr. Meldrum has been away on leave since January 21st.

Park Headquarters for all departments and most of the concessioners is located at Mammoth Hot Springs. 269 miles of telephone line connect Headquarters with substations. A hydro-electric power plant furnishes the light for buildings and grounds at Headquarters. Water, electric current, and telephone service are furnished other departments of the Government in the park by the National Park Service, without charge. During ~~February~~ the hydro-electric power plant was run daily from 4:00 p.m. until noon, and was continued during the afternoon when any necessity existed for so doing.

MARCH

CONDITIONS FOR THE MONTH OF FEBRUARY.

The mean temperature was ^{29.2}19.2, which was 0.4 below ^{2.7 above}normal. The total precipitation according to the weather reports was ^{1.84}1.64 inches of water, which is ^{1.68}0.2 inch less than the normal amount for February. Total snowfall for month, ^{9.8}18.2 inches. At the end of February snow laid on the ground in quantites as follows: *March*

<u>Place.</u>	<u>Snow.</u>	<u>Water Content.</u>
Mammoth Hot Springs	0 10.4 in.	1.96 in.
Norris	^{2.1} 25. "	^{4.45} 5.07 "
Riverside	^{13.} 24. "	^{3.70} 3.77 "
South Entrance	^{35.} 50. "	^{6.30} 9.94 "
Lake	34. "	
Soda Butte	^{5.} 16. "	^{2.35} 3.62 "

A copy of the Monthly Meteorological Report is inclosed herewith.

EMPLOYEES.

The following-named regular employees were carried on the pay rolls during the month of February:

- 1 Chief Clerk (Acting Superintendent)
- 1 Purchasing Clerk and Special Disbursing Agent
- 5 Clerks
- 1 Assistant Engineer
- 2 Electricians
- 4 Assistant Chief Rangers
- 6 First-class Park Rangers
- 15 16 Park Rangers
- 2 Linemen
- 1 Plumber
- 2 Telephone Switchboard Operators
- 3 Foremen
- 1 Handyman
- 1 Laborer
- 1 Watchman

^{17.00}In addition to these, two assistant electricians were employed, temporarily, to assist in operating the power plant, pending certification of eligibles for appointment by the Civil Service Commission, and several carpenters, gas-enginemmen, chauffeurs, etc., were hired for temporary service, to keep up the work of construction and maintenance at Headquarters and on the Gardiner Slide road.

DISTRIBUTION OF PARK RANGERS.

Assistant Chief Ranger James McBride (Acting Chief Ranger) went to the Buffalo Farm via Gardiner, Crevice Mountain, and Tower Falls, on February 1st and the following days; made a careful examination of the winter range for game, and the condition of the range where the tame buffalo were when attacked with disease; assisted in rounding up the tame buffalo and investigating the cause of disease, returning to Headquarters on February 14th. The balance of the month he worked out from Headquarters.

Assistant Chief Ranger James P. Brooks remained in charge of the southern division including Bechler, Snake River, Lake, Canyon, and Sylvan Pass Districts. He patrolled the Bechler and Snake River Districts, then came in to Headquarters via Snake River, Thumb and Lake Stations, arriving here February 21st. The remainder of the month he spent at Headquarters and vicinity, making reports, estimates for repairs to stations in his district, and assisted by Ranger Wiggins, rigged up a cable to be installed later as a crossing over Fall River in the southwest corner of the park.

Assistant Chief Ranger Charles J. Smith was stationed at Headquarters, in charge of the Chief Ranger's Office. He also went to the Buffalo Farm via Tower Falls by truck with the veterinarian from the Bureau of Animal Industry on February 4th, returning the 6th, assisting to investigate the cause of disease among the herd. Also made several patrols to Gardiner and return.

Assistant Chief Ranger Harry Trischman patrolled from Headquarters to Crevice Mountain, Swan Lake Flats, Sepulchre Mountain, and also went to the Buffalo Farm to assist with the tame buffalo while investigation of cause of disease was in progress. He patrolled a total of 245 miles.

First-class Park Ranger B. C. Lacombe was stationed in charge at the Buffalo Farm, and there was assisted by one laborer. Additional assistance was necessary for several days during the epidemic among the buffalo, in rounding up stray animals, burning carcasses of those that died, and holding and feeding the herd.

First-class Park Ranger Court B. Dewing was stationed at Gardiner, and made a specialty of hunting and trapping wolves and coyotes. In connection with this work, he made frequent patrols over our most important winter range for wild animals, namely Sepulchre Mountain via Mt. Everts to Blacktail Deer Creek. He trapped 13 coyotes and one gray wolf.

First-class Park Ranger Peter Lawson was in charge of Gallatin Station in the northwest corner of the park, and was assisted in patrolling that district by Ranger Douglass.

First-class Ranger Thad C. Pound was in charge of Gardiner Station throughout the month, and did some road patrolling with motorcycle in that vicinity, under direction of Acting Chief McBride.

First-class Park Ranger Henry Anderson was in charge of Soda Butte District, and was assisted by Ranger Howard until February 21st, and beginning February 23d by Ranger Geo. Winn who was transferred to that Station from Tower Falls. Anderson also made a specialty of hunting and trapping coyotes and wolves, and his activities in this respect extended as far west as Black Tail Deer Creek. He killed 10 coyotes and reports finding remains of six more that he had killed by poison, so badly destroyed by birds that they were not worth skinning. He traveled 1371 miles during the month.

First-class Park Ranger Roby Roy Wisdom was in charge of Lake Station, assisted by Ranger Massanovich. These two Rangers visited Headquarters once during the month, coming in on February 2d and returning February 4th. Massanovich also came in with Brooks on February 21st, and returned to his Station leaving here on the following day.

Park Ranger Ford Purdy was in charge of Riverside Station, and was assisted in patrolling that district by Ranger Townsend.

Park Ranger E. F. Cushman was in charge of Morris Station, and patrolled that district and assisted in looking after the repairs to telephone lines.

Park Ranger James H. Dupuis was in charge of Crevice Station, where he was assisted part of the month by Ranger Roy T. Frazier. He is a deputy game warden for the State of Montana, and co-operates with the Forest Rangers now engaged in protecting the elk outside of the park in the Absaroka National Forest opposite his district.

Park Ranger Frank J. Winess was in charge of Bechler Station, in the southwest corner of the park, assisted by Ranger James Russell. Patrols from this Station were made under the direction of Assistant Chief Brooks.

Park Ranger J. W. Eline was in charge of Snake River District, and was assisted by Ranger Purdue.

Park Ranger George Winn was in charge of Tower Falls Station until the 23d, and made extensive patrols in that district, especially to Slough Creek and Hollararing, assisted by Ranger Kelley. He also helped at the Buffalo Farm February 2d to 6th inclusive. On February 23d he was transferred to the Soda Butte Station, leaving Kelley alone at Tower Falls. He reports having traveled 230 hours during the month making a total of 315 miles.

Park Ranger William Wiggins was stationed at Headquarters, where he was retained with the expectation that it would be necessary to feed the wild animals hay, but the weather was so mild that this was not necessary. Wiggins was employed to the Buffalo Farm and return, once to Tower Falls and return, and in the vicinity of Headquarters. He also collected a lot of wood for the automobile shelter at Mammoth, for next summer's use, and assisted Asst. Chief Ranger Brooks to construct his aerial tramway to put across Falls River in the southwest corner of the park, where the river is too wide to bridge, and very difficult to cross when the water is high in the spring, and this is a time when it is very necessary to cross it in patrolling for beaver poachers.

Ranger Chester B. Kelley was stationed at Tower Falls with Ranger Winn, and took charge of that station when Winn was transferred to Soda Butte on February 23d.

Ranger William S. Howard was stationed at Soda Butte until the 21st, when he came in to Headquarters. His resignation has been forwarded, recommending that it become effective at the close of February 28th.

Other park rangers were stationed as follows: Joseph Douglas at Gallatin Station; Roy T. Frazier at Grovice Station, except for 12 days when he was sent to assist at the Buffalo Farm; A. L. McLaughlin at Gardiner Station where he made patrols totaling 274 miles; Laurence Massanovich at Lake Station; James Russell at Bechler Station; and F. J. Townsend at Riverside Station. William Purdue assisted at Snake River Station but came in to Headquarters with Asst. Chief Brooks on the 21st, remaining in this vicinity until the end of the month.

Hunter Steve Elkins worked from Gardiner to Soda Butte with his trained lion dogs, but reports the lions pretty well cleaned out. He, however, succeeded in killing ten coyotes and one wolf during the month.

Hunter Robert Harkness worked every day from Headquarters, with his line of traps, but turned in only three coyote skins and one skunk skin as a result of his labors.

Other permanent employees were on duty at Headquarters, maintaining office and storehouse, shops, telephone lines, power plant, buildings, water and sewer systems etc.; and others were engaged in engineering and improvement work - re-modeling buildings at Headquarters, construction etc., under the direction of Civil Engineer Goodwin.

Surveyor Joseph H. Zahner occupied quarters and was subsisted at our general mess Feb'y 1 to 13, while doing engineering work for other parks. Since that time he has been employed as a laborer on work in connection with re-modeling buildings here.

Leaves of Absence: The following leaves of absence were granted during the month of February, 1919:

Clerk L. H. MacRae, regular annual leave February 1 to 5 inclusive, 4 days.

Plumber Harold H. Jones, noon February 20 to February 23d inclusive, 1½ days.

Foreman Bert L. Stimmett February 1 to February 8 inclusive, 7 days.

Ranger W. S. Howard, February 24 to February 28 inclusive, 5 days. Ranger Howard resigned, effective at the close of this leave of absence.

Appointments: No appointments became effective during the month of February.

Resignations: Ranger W. S. Howard, serving under temporary appointment, resigned effective at the close of February 28th.

Vacancies: The following vacancies existed in our regular force at the close of February, 1919:

- 1 Chief Ranger.
- 4 Park Rangers.
- 1 Assistant Electrician.
- 1 Buffalo Keeper.
- 1 Assistant Buffalo Keeper.

Arrangements are being made with the Civil Service Commission to make permanent appointments to several positions now filled by temporary employees.

During February employees of this office purchased War Savings Stamps to the amount of \$57.82, and cashed stamps at the postoffice aggregating \$195.50

ANIMALS, DOMESTIC.

The saddle and draft animals not in use were kept on winter pasture at Yancey's, with one teamster in charge of the herd. It was necessary to feed considerable of the hay that was put up there for that purpose, during February.

GRAZING.

The winter grazing for elk, deer, sheep, and antelope continued first-class, and there was no necessity of feeding them at any point. About 40 tons of hay were fed to the tame buffalo herd, which had to be kept up on account of the disease that broke out among it.

FOREST FIRES.

No forest fires occurred during the month.

Our night-watchman put out a fire that was blazing three feet above the top of an ash can on the porch of the old Quartermaster Office, at 11:30 P.M., February 26th. The can was near a pile of coal, wood, and excelsior on the same porch; the night was exceedingly windy, and the chances for a serious fire were excellent. The following night he had trouble with a stove that had been put up in the building formerly used as a stone stable and now being remodeled into a garage and shop. Several stoves were put up temporarily in this building to keep it warm for work, and to keep the concrete warm while it set, and the pipes which were put through a side window, were not wired and the wind blow one down when the stove was full of fire. Both instances are attributable to carelessness on the part of employees.

FISH.

reported
Fishing was fairly good in Madison and Gardiner Rivers, and was enjoyed to a considerable extent by local parties.

MAINTENANCE AND IMPROVEMENT.

Aside from the work being done under contract, building a road around the Gardiner Slide, and the remodeling of buildings at Headquarters, under the direction of Mr. Goodwin, but little improvement work was done.

The electricians were engaged in operating the power plant; the linemen kept the telephone lines in repair, and worked on repair of equipment; and the plumber made repairs to the plumbing when frozen, turned off water when houses were vacated by employees and turned it on again when the houses were reoccupied. In addition, these employees did considerable work in connection with repairs and maintenance of physical improvements, under direction of Mr. Goodwin.

The work accomplished in the park in the way of improvements and construction under direction of Civil Engineer Goodwin during the month of February was approximately as follows:

In general, during the month the work consisted of repairing transportation and other equipment and putting it in shape for next season's work; repairing and remodeling buildings at Headquarters, consisting of changing one double set of officers' quarters into a four-flat building, and changing one of the stone stables into a machine shop building, and other miscellaneous work. The flats were completed and the work on the stone stable was well towards completion at the close of February.

General office and engineering work was carried on, and also the inspection and oversight of the contract work being done on the road in the Gardiner Canyon. The contractors, Gibbon and Reed Company, continued their work under their contract approved November 4th, for the construction of a road through the Gardiner Canyon. Except for a few days during the month, the weather was very favorable for concrete work and work on the dry rock walls. Due to the fact that the steam shovel was out of commission the greater part of the month, undergoing repairs to the boiler, a poor showing was made in excavating. About 35 to 40 men were employed on the different work during the month. Work on the concrete culverts was commenced and the excavation for three of them finished. The concrete abutments at the new bridge location were completed, and the 75-foot steel span bridge removed from the old position and placed on the new abutments.

The quantities allotted in the estimate for the month consisted of 947.4 cu. yds. class 1 excavation; 394.5 cu. yds. class 2 excavation; 166 cu. yds. class 3 excavation; 127.9 cu. yds. class 2 wet excavation; 72.92 cu. yds. reinforced concrete and revetment walls; 534 cu. yds. dry rock walls; and 67.95 cu. yds. concrete in bridge abutments.

The work accomplished this month brings the excavation quantities to about 30 per cent of the probable totals. The reinforced concrete for revetment walls is completed, and the loose laid rock walls are about 75 per cent completed.

On a monetary value the payments indicate that the contract is about 40 per cent completed. As a matter of fact, incidental work which they have done and cannot be allowed in the estimate, makes the work somewhat over 60 per cent completed; and they should, with good weather and no unforeseen obstacles, be able to finish within the contract time.

The office engineering work for the month, aside from the work incidental to the carrying on of the Gibbon and Reed Contract, consisted principally of making the plans and estimates for the new concrete arch under-pass bridge proposed for the east entrance road, near Sylvan Pass. Some work on the plans for the new shop was also done during the month.

MONIES TRANSMITTED.

The usual report of monies collected, due, transmitted, etc., together with money orders, checks, etc., totaling \$57.05, as called for in the reports on Forms 10-59 and 10-60, are inclosed. Please acknowledge receipt.

NATURAL PHENOMENA.

No changes were noted in the natural phenomena of the park during the month of February.

TRAVEL CONDITIONS.

Seven visitors registered at the north entrance during the month, as shown by the inclosed copy of Chief Ranger's Monthly Travel Report for February. A truck went to the Buffalo Farm on February 3rd and returned February 5th. Teams are still able to travel this road. With some work shoveling out drifts and using a road grader, the temporary road over the hill between Headquarters and Gardiner was kept open to the end of February. Heavy snows the latter part of the month

finally blocked it by drifting so it was impassable for any sort of conveyance on March 1st and 2nd, but the weather cleared and it was again opened for motor vehicles on March 3rd and has been kept open since.

VISITORS.

Special visitors were recorded as follows:

Mr. E. H. Moorman, Auditor for the Yellowstone Park Camping Company, visited Mammoth Camp on business on February 15th to 16th.

Governor Burnquist, of Minnesota, and his aide, Major W. C. Garris, while visiting his wife's relatives in Livingston, came up on the train on February 15th, came to Mammoth and returned in Walter Shaw's automobile, returning to Livingston on the same train. Naturally his time was very much limited, and I did not know of this visit until he had left.

Mr. C. A. McElroy, from the Missoula office of the U. S. Forest Service, called officially on February 24th, relative to an investigation he was making on a report of game violation in Montana, near the northwest corner of the park, by a prominent resident of Gallatin County during the past hunting season. He was enroute to our Gallatin Ranger Station, via Bozeman, to interview Ranger Lawson there.

COMPLAINTS.

The only complaint received during the month was from the citizens of Gardiner to the effect that the contractor on the Gardiner Canyon road was contaminating the river by dumping manure and other refuse in the water. This was referred to Mr. Goodwin, who investigated it and found that the contractors had used some hay to help in stopping the water from coming into the excavations for walls along the river. Some manure was found in with the hay; and the contractors were immediately given instructions to remove everything of that nature from the water and the banks of the river, which instructions were immediately carried out.

WILD ANIMALS.

The weather and snow conditions for wild animals remained excellent, and all seen were reported in splendid condition. Notwithstanding this, however, several thousand elk are reported to be ranging outside of the park, down the Yellowstone Valley in the Absaroka National Forest. Ranger Henry Anderson reports finding 12 elk killed by wolves in his dis-

trict, and occasionally one dies from old age; but, on the whole, the losses thus far have been negligible.

Wolves and coyotes: Two wolves were killed during the month, one by Ranger Dewing and the other by Hunter Elkins. Signs seen, however, indicate the presence of several ranging from Mammoth to Soda Butte, and in the Soda Butte district they have been responsible for the death of quite a number of elk. Efforts are being made to exterminate them. Forty-five coyotes were killed during the month, by hunters and rangers. Of these, Ranger Anderson reports 6 that were poisoned and ruined by birds so that their skins were worthless and not taken off.

Mountain lions: Steve Elkins was employed with his trained dogs throughout the month hunting lions, but the fact that he secured none indicates that they are becoming scarce. His services were valuable, however, in that he killed 10 coyotes and 1 grey wolf during the month.

Otter: Assistant Chief Ranger Brooks reported having seen a number of otter, and seeing signs of otter in most all streams in the southern part of the park.

Buffalo: The 5-year-old buffalo bull shipped to W. A. Johnson, Mexico, Mo., by express, on January 30th, reached him in good condition.

On February 12th a 2-year-old bull from the tame herd was shipped to the City of San Francisco, by express, charges collect, under your authority dated January 23, 1919. He, also, reached his destination in good shape.

On February 6th I made a special report on the death of 31 buffalo of the tame herd, and investigation by Dr. I. Wallman, a veterinarian of the Bureau of Animal Industry February 3rd to 5th. After this report was made, one more buffalo died of the disease, and the carcasses of three more that had died previously were found, making a total of 35 that are known to have died. The report as to ages of animals that died was erroneous, as was found later when there was time to check them more thoroughly. Those that died were of the following description:

	<u>Calves.</u>	<u>Yearlings.</u>	<u>2-yr.</u>	<u>3-yr.</u>	<u>4-yr.</u>	<u>5-yr.</u>	<u>Very old.</u>
Males			4	3			1
Males (steers)	1		5				
Females	10	1		3	1	1	1
Unknown	4						
Total:		35.					

The situation as regards the spread of the disease among the herd seems to have cleared up, and all precautions possible are being taken.

In addition to scouring the country for several miles around the buffalo farm in search of dead buffalo, every effort was made to check up the live ones. The number supposed to be in the herd has not all been located since the death of Mr. Frazier. There were supposed to have been 387 buffalo in this herd on January 1st. Two have been shipped away, and 35 have died. 339 head have been located, leaving 11 head short from the number carried on our return. Acting Chief Ranger McBride, who directed the search for the buffalo and did much hard riding himself, is of the opinion that these can all be accounted for when snow leaves the ground. He thinks some of them are wintering high up on Cache Creek, and that others died last fall on Specimen Ridge, where the snow is now too deep to ride through.

PROTECTION AND CARE OF GAME.

The weather conditions continued reasonably good during the month of February, and all game animals were able to procure plenty to eat without difficulty. //Reports indicate that several thousand elk are wintering in the Absaroka National Forest outside of the park. These, however, are being well protected from poachers by special effort on the part of the U. S. Forest Service, which has a force of from 6 to 8 rangers located in five different camps in connection with this work. It was my intention to detail two rangers to assist in this work, but the epidemic among the buffalo gave us much extra work; and, as the Forest Service was able to bring in men from other National Forests in Montana whose services were not especially needed elsewhere, the services of our rangers was hardly necessary.

SANITATION AND DISEASE.

No sanitary work was done during the month, except the removal of ashes, waste, etc., from the buildings at Headquarters.

ARRESTS AND VIOLATIONS OF THE LAW.

No arrests were made during the month, and no violation of law was reported.

MISCELLANEOUS.

Moving picture shows have been held weekly for the general amusement of residents at Headquarters.

PROPOSED WORK FOR MARCH.

Continued construction and repair of improvements under Civil Engineer Goodwin, under contract in Gardiner Canyon, and by the day on buildings at Headquarters.

Maintenance and repair of buildings, water and sewer systems, power plant and telephone lines; and repair of equipment by shop force, and painting of motor vehicles.

Special care of animals, including feeding them if it becomes necessary, and patrols for poachers from all stations.

Very respectfully,

Chester A. Lindsley,

Acting Superintendent.

Inclosures.